

## ABSTRACT OF THE DISCLOSURE

Technology for *in situ* remediation of undetonated explosive device. An explosive device contains an explosive material in close proximity with microorganisms capable of metabolizing the explosive material that are either mobile or temporarily deactivated by freeze drying. Examples include *Pseudomonas* spp., *Escherichia* spp., *Morganella* spp., *Rhodococcus* spp., *Comamonas* spp., and denitrifying microorganisms. A self-remediating explosive mixture includes an explosive material intermixed with microorganisms. Joined with an explosive device is a bioremediation apparatus that contains microorganisms and prevents contact between microorganisms and explosive material in the explosive device using a barrier that is actuated to release the microorganisms by mechanical, electrical, or chemical mechanisms. If the explosive device fails to detonate, remediation by microorganisms includes both disabling of the explosive material and detoxification of resulting chemical compositions.

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